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ABSTRACT

The two papers that comprise this document focus upon the communication process in extension work. The first paper aims to create greater awareness of the change agent's communication behavior, to make strategies of changing people more into an object of conscious deliberation and less of an art by discussing some of the central elements of the communication process. The second paper, which is a revision of papers delivered at the 18th and 19th International Course on Rural Extension, deals with aspects of change agent behavior which affect contact outcomes. Four "do's" for change agents are suggested: (1) Collect and use feedback; (2) Be client oriented; (3) Use a non-directive approach, especially when identifying your client's problems and way of thinking; and (4) Give careful thought to the nature of proof you offer a client. (DB)

THE CHANGE AGENT AS A COMMUNICATOR

by

Niels Röling⁺

Paper for the 18th International

Course on Rural Extension.

Wageningen, 23 July 1970

INTRODUCTION

Ideas developed by agricultural research would be useless unless they are applied by thousands of farmers, all of them relatively independent decision makers. The objective of a program of planned change is, therefore, usually to make clients adopt, or act upon, new ideas introduced via the change agent. A change agent can be defined as a professional who tries to influence the decisions of his clients in a direction deemed desirable by a change agency.⁺⁺

Given that the success of a change program depends upon the extent to which a new idea has been adopted by clients, the adoption of innovations, has been the subject of a great deal of research. In fact, some 1700 studies have been carried out in the Diffusion of Innovations research tradition which has become well known through a book by Everett Rogers, called "Diffusion of Innovations".⁺⁺⁺

In a recent and large diffusion study⁺⁺⁺⁺ carried out in Brazil, India and Nigeria, in which I was involved, it was found that the sheer frequency of contact between client and change agent could best explain the extent to which the client had adopted innovations. That is, from among over fifty

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⁺⁺ Adapted from E.M. Rogers with L. Svenning (1969), Modernization among Peasants: The Impact of Communication, New York: Holt, Rinehart and Winston p. 169

⁺⁺⁺ Published in New York by the Free Press, 1962. A revised and updated version will appear shortly: E.M. Rogers and F.F. Shoemaker, Communication of Innovations, A Cross-Cultural and Communication Approach, New York, MacMillan.

⁺⁺⁺⁺ For a summary and comparative report of this study, see E.M. Rogers, J.R. Ascroft and N.G. Röling, Diffusion of Innovations in Brazil, India and Nigeria, Diffusion of Innovations Research Report 24, East Lansing, Michigan: Department of Communication (forthcoming)

factors examined, such as farmsize, frequency of listening to the radio, frequency of visiting a city, number of wives married, income, fatalism, etc, the one characteristic which was most strongly related to the number of new ideas which a farmer had adopted was change agent contact.

Such studies show that change agent activity is among the most important factors affecting the productive behavior of the client.

Thus diffusion research, which studies the clients of the change agent brings us right back to the change agent himself. But such research does not tell us much about what the change agent DID to achieve his impact. After all, frequency of contact can refer to listening to the agent's lectures, to watching his demonstrations -- or to eating chicken with the agent. Thus we know that contact must take place, but we don't know what happened during contact, let alone that we know how to optimise the effects of that contact.

We can, on the strength of the results of studies as the one mentioned, only recommend change agencies to increase the frequency of contact between farmers and change agents. This is often difficult to do, especially in developing nations where ratios of extension agents to farmers of 1 to 1700 are no exception. Yet we can support the wisdom of investing in small motorbikes for fieldworkers which would allow them to increase the frequency of contact with their clients.

But apart from such recommendations, diffusion studies sometimes have little to offer the change agency in terms of recommendations which could lead to increasing the impact of the fieldworker. That is, by focusing on the client, diffusion researchers have neglected the one factor which they themselves find to be most important in the change process AND the one factor which can be most easily manipulated by the change agency: the change agent and his behavior in the field.

The focus on the client has another implication. This focus implies, in effect, that the brunt of success or failure to change the farmer's behavior is carried by the farmer himself. This implication reflects the attitude of many change agencies. Especially failures to achieve desired changes are blamed on the backwardness or traditionalism of the farmer. I have even known a change agency which decided that ordinary "bush farmers" could not be relied upon to get the country's agriculture moving, so that expensive land-settlement schemes were started to do the job.

Given our finding that change agent activity is of great importance in the development process, I submit that it is time to shift the focus of research and the locus of responsibility for success or failure from the client to the change agent.

I do know, of course, that the change process has two participants, the change agent and the client. I know that both, in their interaction, determine the outcome of the change process. However, given the present emphasis on the client, I believe it is time to place some emphasis on the change agent. Let me give an example of what I mean from education:

We all know that there are clever and stupid pupils. We all tend to place the responsibility for scholastic success with the pupil. If he fails an exam, we accept the fact that he has to spend another year of his life in the same grade. In one American study⁺, a psychologist carefully tested the intelligence of a sample of the more stupid pupils in the different grade levels of a school. After the study he told the teachers that he had discovered a number of "late bloomers" among the children he studied, that is, children who could be expected to become good pupils later. He gave the names of these "late bloomers" to the teachers. The psychologist returned a year later to find that his expectations had been correct: most of the children he had designated "late bloomers" had bloomed and become good pupils. The catch of the study is this: the intelligence tests were bogus. The "late bloomers" were NOT picked from the group of pupils on the basis of intelligence tests, but completely at RANDOM, that is, arbitrarily.

What made the difference in making these children bloom was NOT their inborn capacities which had slumbered until then, BUT THE CHANGE IN BEHAVIOR OF THE TEACHER toward the children after an eminent psychologist had told him that they were late bloomers, which led the teacher to reinforce these children more, to give them extra attention, etc., which made good pupils out of formerly inadequate ones.

It is with examples such as the late bloomers in mind, that I suggest that it is time to shift our attention to the behavior of the change agent. A focus on the change agent implies that HE carries the responsibility for success or failure of the change program. Such a focus also implies the assumption:

THERE IS ALWAYS SOME TYPE OF CHANGE AGENT BEHAVIOR WHICH WILL LEAD TO SUCCESSFUL CHANGE. THE PROBLEM IS TO FIND AND DEVELOP THAT CHANGE AGENT BEHAVIOR.

⁺ The example is based on the presentation of an unpublished paper. The study was carried out under the auspices of Dr. B.F. Skinner of Harvard University

I know this is a somewhat exaggerated assumption, but I think it a useful one after the exaggerated focus on the client. Therefore the assumption will serve as the point of departure for my discussion of the change agent as a communicator.

FOCUS ON COMMUNICATION

Development plans often state their goals in physical terms:

By 1980 we want a bridge across River,
5000 extra jobs in industry, 120.000 acres
of high yielding oilpalm, etc.

Such physical goals are achieved in different manner. The bridge can be built by a company of experts. All one has to do is to order the experts to build the bridge. However, the usual and apparently most effective method of getting the planned 120.000 acres of oilpalm planted is to convince each of thousands of independent farmers to take the decision to plant the high yielding variety of oilpalm on his few acres of land.

Thus such physical change can only come about through first changing people.

It is as simple as that. Yet, we have in the past given great attention to the development of high yielding varieties, we have funded expensive experiment stations, we have spent years on the study of technical matters. But we have given only little effort to studying the job of changing people. Yet changing people is a necessary condition for the application of our technical findings.

Our insufficient realization of the necessity of satisfying this condition leads to unfortunate situations.

For example, it seems⁺ that the rapid spread, in India, of the new rice varieties, developed by the Rice Research Institute in the Philippines, and said to be the basis of the "Green Revolution" in Asia, has encountered a bottleneck. That bottleneck seems to be the extension of the new varieties to farmers.

The new varieties are there but the people cannot be changed rapidly enough to profit maximally from them.

⁺ Dr. H. ten Have, paper on "Green Revolution" for meeting of the "Nationaal FAO Comité" the "Landbouwcommissie Ontwikkelingshulp" to prepare for the Second World Food Congress, The Hague, May 12, 1970

The result of our lack of attention to "people change" is that we have very few well-supported generalizations on which to base the activity of changing people. Even though I am a so-called expert on changing people, there is little that I can recommend you which is based on well-established evidence.

Similar things can be said of the change agent in the field, who actually has the job of changing people. He is usually well-trained in the technical field. He knows about fertilizer, new varieties, plant diseases, the profitability of different ventures, etc. However the change agent normally gets little training in changing people, in the methods of affecting the decisions people make.

One reason for this lack of training is our lack of knowledge. Another reason is that the change agent is often only seen as a radio who does his job if he repeats the technical message. This is called "transfer of information". It is assumed that the farmer will adopt a good thing if he hears of one.

However, if the change agent were indeed like a radio transferrring technical information we would not need change agents. We would only need radios. But we know that such mass media as radio serve very well to create the awareness that a new idea exists. However, the mass media, in themselves are usually not sufficient to influence people to act on the new idea.⁺

Change agents are employed because they perform other functions than just transferring technical information: they do influence people to ACT on technical information.

Let me illustrate this statement by explaining the change agent's function of motivating people, of tying the innovation he promotes to a desire or need of his clients, in order to get that innovation adopted. That is, I want to show that the change agent has other functions than just transferring technical information.

(1) There are numerous cases which illustrate that an innovation is not adopted if people feel that it does not serve to satisfy a desire they have.

An example is a cotton project in Malawi, introduced in a period when farmers in the area only had limited financial needs. After much prodding by the Government the cotton was planted, but only harvested to a limited extent, i.e., to the extent that the farmers needed the cotton to earn money to pay taxes and schoolfees. Once these were paid, the farmers had no reason to harvest more.

⁺A.W. van den Ban, "The communication of new farm practices in the Netherlands", Sociologia Ruralis, Vol. 2, number 2, 1965.

Therefore, the Government harvested the rest with the help of boy scouts. The money thus earned was given to the farmers. The next year the farmers refused to plant cotton, saying that they still had enough money from last year's harvest to pay this year's taxes and school fees.

(2) There are numerous cases which illustrate that an innovation is adopted rapidly by large numbers of people without the help of a change agent once the innovation is perceived to allow the satisfaction of an existing desire.

An example is the old Yoruba farmer who had been the first to introduce cocoa trees in his village in bygone days when there was no extension service in Western Nigeria. When I asked the old farmer why he had planted cocoa, he said: "To make money". When I asked him why he had needed money in those days, he explained how he had worked on the railroad near the capital and had seen corrugated iron roofs which he had perceived as much better than the thatched roofs used in Western Nigeria up till then. He also saw that the cocoa farmers near the capital could afford to have corrugated iron roofs. Thus the link between desire and innovation was clear, so he adopted cocoa. The activity of such men had made Western Nigeria one of the world's leading cocoa producers -- without the help of a single change agent.

From our examples from Malawi and Nigeria, I believe that we can say that an idea will only be adopted if it is clear that the application of the idea allows the satisfaction of an existing desire. The change agent usually promotes NEW ideas, i.e., ideas which are not yet linked to an existing desire in the minds of his clients. Therefore, the change agent also has the important function of creating a link between the new idea which he promotes and an existing desire. It is thus not enough for the change agent to transfer technical information. He must also show how that technical information can help the farmer to satisfy his existing needs.

In performing the function of, not only transferring new ideas, but also of linking those ideas to existing desires, the change agent must communicate. His success or failure depends upon his ability to communicate. The change agent has a special problem in this regard: his clients are free to walk away or to disregard his advice, so that the ability of the change agent to communicate is even more important than that of a university professor, who has a captive audience over which he has some degree of fate control.

We have already seen how the researchers' neglect of the behavior of the change agent has resulted in a lack of knowledge about change agent communication. We have already seen that change agents are usually little prepared by their training in communication techniques. You know that your own communication behavior is largely guided by feeling and experience and not by scientific generalizations.

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It is my purpose here to create greater awareness of the change agent's communication behavior, to make strategies of changing people more into an object of conscious deliberation -- and less of an art -- by discussing some of the central elements of the communication process.

ELEMENTS OF THE COMMUNICATION PROCESS

What is communication? We communicate all the time. I am communicating right now. Yet "communication" is difficult to define. "What is communication?" is the one question over which communication scholars break their heads. This state of affairs shows that communication science is still a baby among sciences.

If we cannot answer "What is communication?" directly, we can say something about the minimal conditions which must prevail before we can speak of communication. These minimal conditions can be stated as follows:⁺

AT LEAST TWO PARTIES (for instance the change agent and his client)
SEND PHYSICAL UNITS (messages) THROUGH CHANNELS WHICH CONNECT THE PARTIES.
EACH PARTY PATTERNS THE PHYSICAL UNITS HE SENDS IN SUCH A WAY THAT THE
PHYSICAL UNITS SERVE AS A CUE WHICH ACTIVATES THE OTHER PARTY'S REALITY
ACCORDING TO LINKAGE RULES ON WHICH THE PARTIES MORE OR LESS AGREE.

Having thus satisfied the formal requirement of defining what I am talking about, I have, nevertheless, been a bad communicator. If you do not quite understand the minimal conditions stated it is not you, as a client, who lacks intelligence, but I, as a change agent, who failed to communicate effectively. But bear with me: I will make an effort to improve. Let me deal with the elements mentioned in some detail.

1. Reality

Very crucial indeed for understanding the communication process is the concept of reality. Many people call the world around the "reality". As if reality is really out there. They forget that what they call "reality" is nothing but their subjective mental picture of the world out there.

By calling their mental picture real, by reifying their reality,
people make tremendous mistakes in their communication because, if they
reify THEIR reality, they cannot see that others may have ANOTHER reality.

⁺ Niels Röling, The Evolution of Civilization: A Theoretic Approach to the Diffusion of Innovations with Special Reference to Modernization, PhD Diss. East Lansing, Michigan: Michigan State University, 1970. Adapted from D.K. Berlo, "Essays on Communication", East Lansing, Michigan: Michigan State University, Department of Communication, 1969, (mimeo).

It is easy for me, who has struggled with the concept of reality for some time, to discuss it in a few words, but it is not easy to understand the concept immediately. Yet it is of great importance for understanding the communication process. Let me give an example:

A people which has lived for generations in a small village with a limited amount of land on which crops are cultivated with methods which have not changed for a long time is likely to come to look at the goodies of this world as of fixed quantity. That means: if one man gets more, another must get less. This reality, this view of the world is called the "image of the limited good"⁺, and is a useful reality to have in a situation where the means of production are indeed limited and do not change.

Now imagine that a change agent comes along to promote fertilizer. Imagine that he tells the farmers that fertilizer can increase production. What do you think will happen? Let me tell you what happened in one West African rural area. Farmers in this area regarded fertilizer as a magic medicine which pulled fertility from neighbouring fields to the crops of the farmer who used fertilizer. The result: fertilizer was rejected because of public pressure.

Given that one has an image of the limited good and given that one believes that one man can only get more at the detriment of another, the belief that fertilizer is a magic medicine pulling away fertility from neighbouring fields is a very logical one. The change agent who does not understand the concept of reality will not be able to see the farmers' reaction that way. He is liable to call them stupid. What's more he cannot be expected to adapt his communication strategy, for instance to change the farmer's image of the limited good.

Let me give one more example to try to give more life to the concept of reality:

In medieval Europe, reality had it that the earth was the center of the universe. This reality was reified to such an extent that, when Copernicus came to tell people that the earth turned around the sun, he was given a hard time indeed and his book was placed on the Index, the list of forbidden books. Mind you, neither sun nor earth had changed, only Copernicus developed a different reality of the relationship between sun and earth. We have now all adopted Copernicus' reality because that reality, that model of the world around us, is more useful in explaining the things that happen to us everyday, such as sunrise and sunset.

⁺G.M. Foster, (1965) "Peasant society and the image of the limited good", Am. Anthropologist, Vol. 67, p. 293-315.

In general, one could say that science has the function of creating useful realities and that education and extension are methods of transferring useful realities to those who do not have them yet. I could, therefore, easily go on giving examples because clashes between realities and reality change are what science, education and extension are all about. But let me make the point:

Reality is our subjective model or picture of the world around us.
No other world can exist for us because we cannot know it. Reality, our model of the world, is not the real world, it is a picture of the world.
Other people may have other realities. If we think that our reality is real, we become dogmatic, ethnocentric and unwilling to accept other viewpoints. In short we make many mistakes.

Let us look at the implications of our discussion of reality for communication:

1. When we communicate, we speak from our own reality and try to affect somebody else's reality. Communication occurs between realities.
What I say to you only becomes significant to the extent that it activates your reality, to the extent that it has MEANING for you.

2. Therefore, what we say to people does not automatically lead to the desired effect, simply because we have said it. Let me give an example:

My little son does not yet know the difference between right and left. If we cycle together on Holland's busy streets and we come to a fork in the road, I have observed myself to say "Go left". My son then looks questioningly at me. I now shout GO LEFT very loudly. In doing so I give proof of my belief that the meaning is in the message, that is, in my words and that my son will get the meaning if I repeat the message or even shout it. Since the fellow does not know the difference between right and left yet, my efforts are, of course, wasted. The meaning is not in the message but in my son. If my son does not have meaning for a word, saying or even shouting that word will not help. If I want my son to go left, I will have to use another message, one for which he has meaning.

MEANINGS ARE IN PEOPLE AND NOT IN MESSAGES⁺ AND WE MAKE MANY COMMUNICATION ERRORS IF WE DO NOT REALIZE THAT.

⁺D.K. Berlo, Process of Communication, New York: Holt, Rinehart and Winston, 1960.

When we send a message to somebody, we hope that it will activate his reality, that is, elicit meaning in him in the manner we intended. But we can never be sure of our effect beforehand because people have different realities and the same message may elicit different meanings in different people. Let me give an example:

Change agents in a Dutch fruit growing area were convinced that large, old-fashioned fruit trees were uneconomical. They preferred small trees planted in rows so that harvesting costs were minimized and thereby profits maximized. Thus they mounted a campaign which had, as one of its features, a poster showing a large and well-to-do apple tree with the caption CUT IT DOWN. The poster proved very ineffective because the farmers had another reality. For them the large tree looked healthy. They knew it could produce many apples. Thus they felt it was foolish to cut it down.

Where the change agents used the outcome of cost-benefit calculations as their criterion, the farmers looked at quantity of apples⁺ produced. The poster can be considered a failure.

Thus the same message, i.e., the picture with the caption, had different meaning to the change agent and to the farmer. Only if the parties who communicate have somewhat overlapping meaning, only if they share meaning for a message, do they communicate.

3. Therefore, we should orient our message to the receiver.

That is, we should construct our message with our receiver's reality in mind. We should try to know our receiver and try to understand his reality. If our messages are not hooked onto the reality of our receiver, it is a waste of time to send such messages in the first place.

I can shout GO LEFT to my son, but that is wasted effort. My message is not hooked onto my sons reality. He had no meaning for it. My failure to understand that meanings are in people could even lead to an accident. After the accident, I would say to my son: "But I told you to go left". In saying that I, once more, give evidence of a belief that meanings are in messages. Therefore, one speaks of the "I told you so fallacy",⁺⁺ in cases where people try to blame someone else for the problems they themselves have caused by not understanding that meanings are in people.

⁺A.J. Wickers: "De evaluatie van een voorlichtingscampagne in de Betuwe", Wageningen: Afdeling Sociologie en Sociografie, Landbouwhogeschool, Bulletin 11, 1958.

⁺⁺D.K. Berlo, (1960) op.cit.

Even if we send messages with a receiver, and not ourselves, in mind, we should make clear to ourselves WHICH receiver we have in mind. Lack of clarity in this respect can lead to serious problems. Let me give an example:

I have been acquainted with a large research project intended to produce results which would be useful to change agencies. Some of the scientists who wrote the reports, wrote them with a specific receiver in mind: other scientists. This they did because they wanted to be regarded as good scientists among their peers. This orientation led to reports full of complicated statistics and words for which non-scientists have no meaning. The result: the reports were useless for the change agencies for which they were really intended. I have seen change agents do similar things, like writing pamphlets for barely literate farmers which had clearly been written to impress superiors in the Ministry.

4. Our messages are never adequate in themselves. They are only adequate when we have proof that we have the intended effect. The job of the communicator is not finished when he has constructed a message which pleases him. He must observe its effect and be ready at all times to change his message if it does not have the intended effect. Let me give an example:

I may have done my best to make this presentation into something that pleases me. But if I see a number of you sleeping or speaking to each other, or if I find that you ask questions which make it evident that I have not had the effect I intended, my message was inadequate and I will have to change it for the next occasion

5. Change agents should always pretest the adequacy of important messages and be ready to change them on the basis of the results of the pretest, i.e., on the basis of feedback.

Feedback occurs when we receive information about the effect of our actions. We adjust our actions on the basis of feedback until our feedback tells us that we have the desired effect. Let me give an example:

Imagine a warship shooting at an enemy 20 miles away. The first shot fired is usually far off the mark - it is a shot in the dark. But a little plane circles over the enemy ship and radios to our warship: "You are too far to the right". The next shot will be more to the left. The little plane radios: "You are too far to the left". It is only after a number of such corrections on the basis of the feedback given by the small plane that the shells finally hit the enemy ship.

Another example:

In developing a new seed variety, agronomists usually spend years in collecting feedback. They test the new variety on experimental plots and work on it until it has the intended effect.

Then comes the extension service which is responsible for the acceptance of the new seed variety by thousands of farmers. It is my experience that the extension service mounts a big promotion campaign, which has been planned in some office and which has never been tested on its effectiveness.

Such a campaign is a shot in the dark, as much as the first shot of our warship.

Given the fact that we know so little about how to optimize the impact of our extension effort and given that the communication process is so extremely complicated, it is vain to hope that the office is a place in which we can develop messages which are more than a shot in the dark.

6. THE BEST FRIEND OF THE CHANGE AGENT IS FEEDBACK. THE CHANGE AGENT SHOULD SEEK FEEDBACK AND USE IT, I.E., CHANGE HIS COMMUNICATION STRATEGY IF HE DOES NOT HAVE THE INTENDED EFFECT.

There is a difference between collecting feedback and using feedback. Let me give an example:

If a speaker notices that his audience is asleep, he collects feedback. If he changes his speech as a result of the negative feedback he has collected, he uses that feedback. Many people collect feedback but never use it, such as the university professor who never has more than two students in any given year, but who continues to pull the same dusty old lecture out of his drawer.

It is easy for me to stress the need for collecting and using feedback, that is, to stress the need for evaluation. But I know, and you, as old hands at the game, know that there is a great lack of techniques with which to obtain adequate feedback.

One of the problems here is to select the phenomena which will be used as feedback.

Example. I have used sleepiness of the audience as an example of one phenomenon which could be used as feedback. But when my audience is not sleepy and interested, all I know is that I have generated attention. Attention is only a condition for getting my message across. But sleepiness or interest may be the only indicator of my impact which can be easily collected so that I use it for lack of better.

The fact that I select as feedback a phenomenon which can be observed easily brings us to a second problem in feedback collection: The phenomenon one selects as an indicator of one's impact must be easily observable.

Example: You may, after my presentation, be in deep thought about the communication process, you may go home and discuss "meanings are in people" with your colleagues, etc. But I have no way of collecting these phenomena (which would be good feedback).

It may be best to discuss these problems some more this afternoon. I have included two discussion questions on feedback. For the moment, let me discuss one common method of evaluating the impact of one's message: That is, asking the receiver to repeat the message in some way.

You may have played the game in which some information is passed down a line of people. That is, one man gets the information from one neighbour and passes it on to his other neighbour. The one who sends the information in this game is not allowed to make sure that he has been understood. It only takes about five people to get a completely distorted message. There is a well-known army rule which tries to avoid such distortion. It requires any man who gets an order to repeat it to the one who gave the order. However, such a procedure is no guarantee for being understood. I can ask my son to repeat "go left" a hundred times, but it will not make him go left as a result of it. More effective would be to ask my son in which direction he intends to go after I have asked him to go left. It is then that I will notice that I have to change my message by, for instance, pointing in the direction.

University professors and other teachers also ask the receivers of their messages to repeat their messages in some form: they give an exam. There is, however, a difference between professors and change agents in what they do with the feedback. If the exam is a failure the student is flunked. The client is blamed.

If a client of a change agent "fails" by, for instance, not following the change agent's advice, all the change agent can do is to change his message, to use the feedback.

Some change agents never do this, of course. They send their one shot in the dark and if it fails, they blame the client as a backward or traditional good-for-nothing. But that is the same as my shouting GO LEFT and then leaving my son to have an accident -- and blaming him for it afterwards.

2. Messages

We have made the point that meanings are in people and not in messages. We have seen that the picture of an apple tree (a message) can mean different things to different people. That is, the message is the same but the meanings it elicits are different. If meanings are not in messages, what are messages?

Messages are minimally physical units, such as sound waves, paper and ink, facial expressions or even pieces of clothing, such as a policeman's uniform.

Thus messages are physical packages which have been put together by their senders in such a way that the messages elicit certain meanings in the receiver.

Which physical unit will elicit which meaning is determined by a set of arbitrary linkage rules on which a number of people agree.

Example: We have arbitrarily agreed to let the sound "left" refer to a certain direction. My son is not yet a partner in this agreement.

Although messages do not carry meaning in themselves and can only elicit meaning, messages are the things through which we communicate. They are the only things we can see or hear when communication occurs. Messages are the stuff of communication, the things we can lay our hands on, the things that have effect. It is only through messages that we can be psychiatrists, teachers, extension agents, in short, change agents.

Although we cannot hear or see meaning, we have many words that describe meaning but only few that describe messages.

For example, we may find someone arrogant. That is the impression he makes on us. But it is very difficult to determine the physical aspects of his messages which made him arrogant in our eyes. Yet we can only have noticed his arrogance because of characteristics of his messages. There is no other way in which we could have come to regard him as arrogant. Yet we cannot describe the physical aspects of the message which made for arrogance.

The dearth of words with which to describe messages has an unfortunate consequence for our ability to train change agents in the proper use of messages.

For example, we speak of client versus agency orientation of the change agent and say that the change agent should be client oriented, that is more concerned with satisfying his clients than with satisfying his boss. But client orientation can only be expressed through messages. It has to be enacted to have a beneficial effect on the relationship between client and change agent. In order to train change agents to be client oriented, we should know the physical aspects of the messages which characterize a client oriented change agent. It is not enough to tell a change agent to be client oriented, or even shout BE CLIENT ORIENTED. We should have things to point to, types of messages that must be sent in order to be client oriented. We find it very difficult to do this and hence very difficult to properly train extension agents.⁺

Yet communication research is making some progress. More and more researchers are starting to focus on the message of the change agent because they realize that the change agents message is a crucial factor in satisfying that necessary condition for development, people change. Let me give a number of examples:

a. An old extension philosophy prescribes the agent to "help people to help themselves". That is a nice slogan but it does not tell the agent how he should behave to help people help themselves. Of recent, communication research has begun to make some progress in discovering the types of behaviors which do have the desired effect. ⁺⁺Two types of agent approaches have been discerned:

- i. the directive approach, and
- ii. the non-directive approach.

The former approach is characterized by the agent's rather authoritarian demeanor. He orders his clients around, prescribes them what to do and takes decisions for them. This approach can lead to results rapidly. However, clients do not become independent decision makers. Instead they continue to rely on the agent and do not learn to help themselves.

The latter approach does seem to lead to client independence in decision making. Communication researchers are learning more and more about the type of messages which make for a non-directive approach.

⁺The best we can do is to train agents by role playing. Such role playing gives the trainer a chance to say: "At that point you were too agency oriented" etc., thus giving the agent a feeling for what is meant by the concept.

⁺⁺T.R. Batten, The Non-Directive Approach in Group and Community Work, London Oxford University Press, 1967.

By looking at the communication behavior of teachers⁺, for instance, it was found that the more the teacher accepts ideas, questions and feelings of students, the more he praises and encourages students in their own actions, and the less he lectures, gives directions or criticisms and justifies his own authority, the more spontaneous contributions and acts of problem solving are observed among his pupils and the less compliance and distraction.

b. The demonstration farm has been used by scores of change agents as a tool for achieving change. It is a message which is meant to say: "Here you can see a good thing, try it on your farm". Convinced that this was indeed the message of the demonstration farm, large amounts of money have been spent in many countries on demonstration farms. Often these heavy investments were meant to make a perfect showcase of what was possible, if only the farmer did his best. Notwithstanding such efforts, demonstration farms often have little demonstration effect. Finally someone questioned the assumptions made and found that demonstration farms often have the following message for farmers: "Here is a demonstration of your inability as a farmer."

The result of this message is that farmers start to defend themselves by looking for reasons why their own farm cannot be compared with the demonstration farm. In fact, farmers are very clever in rationalizing away the effects of the demonstration farm.

As a result of such findings, we now know that we should make demonstration farms as similar as possible to local farms and not invest large amounts of government money in them.

Although message research is still scarce and in its infancy, it is going in a direction which is promising. By discovering the characteristics of change agent messages which promote desirable client changes, such research opens the way to training change agents in using such messages.

⁺E.J. Amidon and J.B. Hough, Interaction analysis, Reading, Mass: Addison Wesley, 1967

⁺⁺H. Albrecht, "Die Bedeutung von Demonstrationsbetrieben als einer Form der landwirtschaftlichen Entwicklungshilfe: Wirkungsbedingungen und Problembereiche des Demonstrierens" (The importance of demonstration farms as a form of agricultural development aid: conditions of efficiency and problems in demonstration), Göttingen, Germany: Institut für Ausländische Landwirtschaft, 1965.

3. Channels

Where messages are physical units, they must be sent through some physical channel to reach their destination. That is, channels must connect the sender and receiver of a message for it to have effect. That is, channels must allow soundwaves, pieces of paper with ink or other physical units with symbolic content to pass through them.

Most communication research is channel research because channels are the most observable aspect of the communication process. When we speak of "communication development" in a developing country, we usually refer to the development of modern physical communication channels, such as radio networks, telephone connections, etc. Let me give some examples of channel research.

Such questions as "who listens how often to the agricultural radio program?" is a channel question. One does not care about the message. One only cares about the number of people and the frequency with which each can be reached through a certain channel.

The same can be said when one asks farmers: "How often did you speak with the extension agent?" We saw that the frequency with which a farmer is in contact with the agent best explains the farmer's adoption of new ideas. Yet frequency of contact only refers to the frequency with which a channel existed between agent and farmer and says nothing about the messages sent through that channel.

The notion that a message must pass through a channel to reach its destination is deceptively simple; as simple as the advice to change agents: Make sure that there is a channel through which your message can reach the audience you have in mind. Notwithstanding the self-evidence of this advice, many mistakes are made by not heeding it. Let me give an example:

Result demonstrations carry a message which is supposed to reach farmers. That message only reaches them, however, if they actually come to look at the demonstration. In a recent study⁺, it was found that only 14 out of 22 extension agents responsible for setting up result demonstrations were aware that teaching during demonstrations, by arranging field days and visits of farmers, was an important aspect of the result demonstration.

⁺K.N. Singh and V.K. Kumar, "Result demonstrations - purpose, process and technique", Indian Journal of Extension Education, Vol. 1, number 2, 1965, pp. 92-101.

There is another important aspect of channels. The change agent often has many potential clients and it is impossible to reach them all. It is not necessary to reach them all. Diffusion research has shown that the change agent usually has contact with about 20% of the people in a community and that the new idea diffuses to the other 80% more or less autonomously⁺. This raises the question: whom should the agent contact to optimize his impact on the whole community?

Some people are much better channels for reaching than other people. That is, people whom others often ask for advice, people who have a great many daily contacts with community members, and respected and trusted positions within the community, i. e., opinion leaders, are much better channels through which to send messages to the community than for instance, isolates, even if those isolates are very progressive community members who are eager to adopt new ideas. In developing countries, opinion leaders are often people who hold formal positions in the community.⁺⁺

CONCLUSION

The change agent is a professional communicator, although he is seldomly trained to be a good communicator. The change agent communicates effectively if he sends messages through channels which connect him with his intended receivers, and if he puts together his messages in such a way that they elicit the meanings which the change agent intended in his intended receivers. The change agent can only verify to what extent he has been successful by using, as feedback, the reactions of his clients to his messages.

The communication strategy of the change agent is the particular mix or combination of channels, messages, intended receivers and feedback devices which the change agent uses to achieve a certain goal. The change agent's effectiveness is determined by the adequacy of his strategy.

⁺ E.M. Rogers and F.F. Shoemaker, op cit., chapter 7.

⁺⁺ E.M. Rogers, J.R. Ascroft and N.G. Röling, op cit.

DISCUSSION QUESTIONS

1. What methods are used by agents of your change agency
 - (a) to link a new idea to a desire clients have and
 - (b) to convince clients that application of the new idea does indeed lead to the satisfaction of existing desires?
2. What phenomena does your agency use as feedback to evaluate the performance of its change agents in the field?
3. How is feedback used by your agency in the development of its extension campaigns?
4. What strategy do change agents in your agency use to optimize their impact on a rural community?

COMMUNICATION: A KEY TO SUCCESS IN EXTENSION ¹⁾

by Niels Røling ²⁾

1)

The present paper is a revision of papers delivered at the 18th and 19th International Course on Rural Extension, July 1970 and 1971, Wageningen, Holland.

2)

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INTRODUCTION

Applying new ideas is a necessary condition for increasing the amount of control a farmer has over his environment and, therefore, the basis for increasing his welfare. Many suitable new ideas are available from research and experimentation. Yet a large proportion of them are not yet applied by those who could profit from them most. Our era is, in fact, characterised by a technology gap which is acerbitated in areas which have only recently been swept along in the mainstream of technological civilisation.

The objective of rural development programs is, therefore often to make people apply new ideas. To achieve it, agencies promoting rural development employ change agents, i.e., professionals who have the job of convincing people to adopt new ideas. Thus, all Ministries of Agriculture employ extension agents who work directly with farmers, forming the link between sources of new ideas and those who can profitably apply them.

Given that the success of programmes of rural development depends upon the extent to which new ideas (or innovations) have been adopted, the process by which innovations diffuse throughout a rural community has been subject to much research ³⁾. One of the generalisations of diffusion research is that

 3) For a recent overview of diffusion research, see E.M. Rogers and F.F. Shoemaker, *Communication of Innovations, a Cross-Cultural and Communication Approach*, New York: MacMillan, 1971.

knowing the sheer frequency of contacts between a farmer and change agents will best enable one to predict the degree to which the farmer has adopted innovations.

Thus, diffusion research, which studies the adoption of innovations by the clients of change agents, brings us right back to the agent himself: It shows that his activity is one of the most important factors affecting the productive behaviour of farmers. But because diffusion research focuses on farmers and not on agents, it can tell us little about what agents DO to achieve their impact. Contact must apparently occur for new ideas to diffuse, but we know little about how to optimise the effect of contact. The present paper deals with aspects of change agent behavior which affect contact outcomes.

Sofar, most studies have focused on the readiness or resistance to change of farmers to explain success or failure of change programs. The present paper assumes the more manipulable agent to carry the brunt of success or failure. Stronger, it assumes that there is always some change agent behavior which will lead to successful change. Our problem is to identify and develop such successful behavior.

Since farmers are relatively independent decision makers, i.e. free to accept or reject new ideas, the agent's success depends, to a large extent, upon his ability to convince and communicate. Most change agent are well-trained in WHAT to communicate, not in HOW to communicate it. That is, most change agent are ill-prepared for their job. The present paper deals with the change agent as a communicator.

ENCOURAGING CHANGE

Development Plans usually call for increased production of export crops, staple crops, high protein foods, etc. Such objectives can seldom be achieved by contracting an engineering firm, but only by convincing thousands of farmers to apply new techniques. Such development can, therefore, only come about through changing people.

How do we change? Herbert Kelman⁴⁾ has suggested three basic processes

 4) H.C. Kelman, "Processes of Opinion Change", Public Opinion Quarterly, 25
 (1961), pp. 57-78

by which people change as a result of others' influence:

compliance, identification and internalisation.

Compliance refers to situations in which the agent has means-control over his client : the client changes because the agent can punish or reward him, not because he wants to perform the new behavior for its own sake. Therefore, he will only perform the behavior when the agent is around. Compliant change is not rare in rural development. Rinderpest inoculations and erosion control, for instance, often result from law enforcement. Other new behaviors are enacted because they are subsidised or otherwise rewarded, and not because clients are convinced of their intrinsic usefulness. Compliance methods are not universally suitable for rural development, however. First, the need for surveillance make them expensive. Second, change agencies will want their clients to make their own decisions and improve their decision-making capacity.

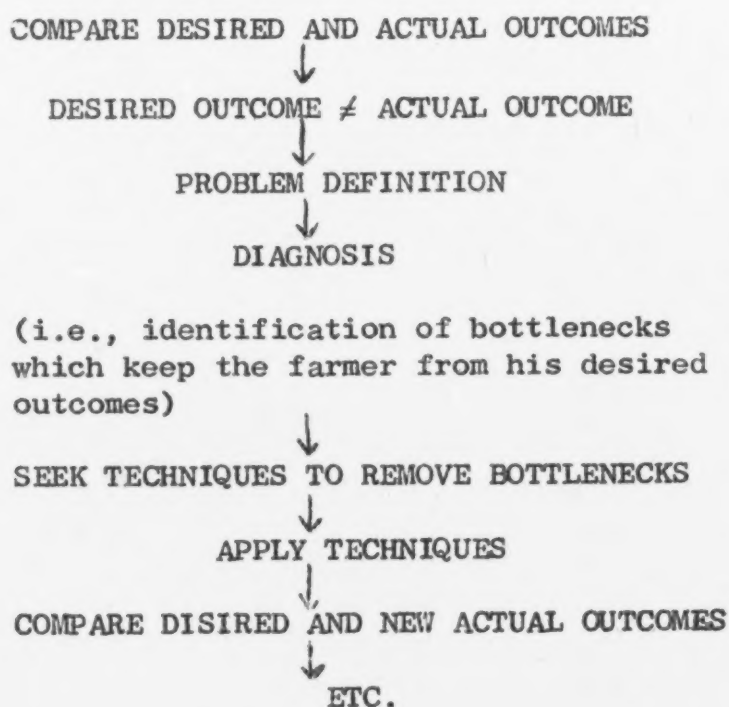
Identification refers to situations in which people change to be accepted by others, and agent power is based on attractiveness. The client performs behaviors which the agent expects of him. Often, the agent does not have sufficient attractiveness to compete with the farmer's community for behavior change on the basis of identification. Of course, identification processes cause many agents to favor group- over individual methods.

Internalisation refers to situations in which people change because they want to, because they are convinced that the new behavior serves their ends better than others. The basis of power of the agent is his credibility, his ability to convince the client that the behavior he promotes will best serve the client's purpose. Internalisation is not necessarily the best method of achieving change. It seems, however, often the most suitable and pragmatic one. Once a client is convinced, he will continue to perform the new behavior in the absence of the agent. It will be performed for its own sake, the best guarantee for the success of its outcome.

INTERNALISATION AND PROBLEM SOLVING

The present paper focuses on internalisation, if only because the average rural change agent has little means-control over his clients, nor the kind of attractiveness which makes clients try to fit his expectations. The agent must, therefore, rely on his ability to convince people.

Internalisation refers, as said, to the process by which a farmer changes because he believes that such change will increase the correspondence between his desires and his actual experience. When a farmer's desired and actual outcomes do not correspond, he is faced with a problem, which he will try to solve in a problem solving process:



An example is provided by the old Yoruba farmer who had introduced cocoa (a new technique) into his village. When asked why he had started planting cocoa, he said that he had needed money because he had seen corrugated iron roofs when working on the railroad near the capital and had perceived as better than the tached roofs then used in Wester Nigeria. He had also seen that cocoa farmers near the capital earned enough to buy iron roofs and had, therefore, adopted cocoa. Thus the Yoruba farmer had learnt to desire outcomes other than the ones he experienced. He had seen that he could realize his desire with money and had found a new technique for making it. He now has a very comfortable house.

In case of internalisation, the change agent influences the problem solving process of his client in such a way that the new idea promoted by the agent is accepted by the client as a technique which can remove the bottlenecks keeping the client from achieving his desires.

This state of affairs has implications for the behavior of the change agent: (1) He must identify the desires ("felt needs") of the client of make the client aware of needs. (2) He must create a strong link between the new idea he promotes and the desire or need of his client. He can, for instance, identify the bottlenecks keeping the farmer from realizing his desire and show that the new idea will remove those bottlenecks.

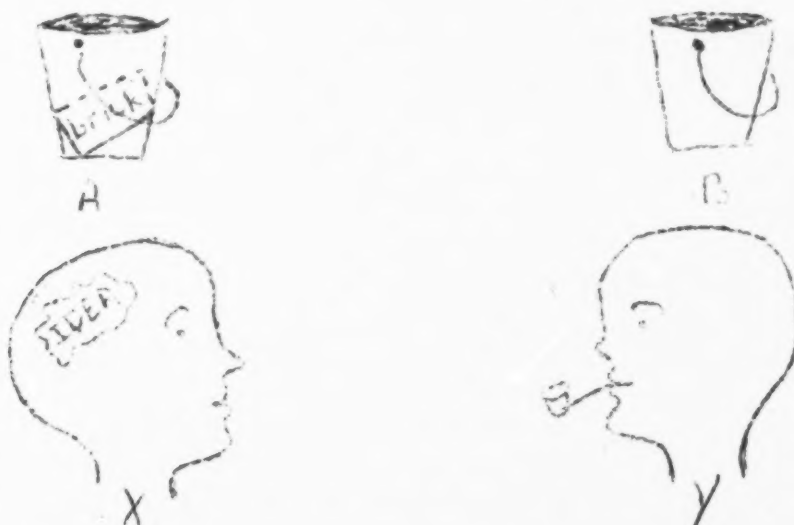
Change oriented communication often follows this pattern. Take a typical TV advertisement, for example. A beautiful girl is seen alone and sulking at a party. Her gril-friend is having fun with the boys (compare actual and desired state: there is a problem here). Then the camera focuses on the girl's armpit: oh, oh, body odor (diagnosis). The time is ripe to show the technique (can of deodorant) that can take away the bottleneck. The ad ends with the girl happily chosing from among her suitors. Thanks to the technique, desired and actual outcomes now do correspond.

Like the advertiser, the change agent sends messages which hopefully affect the problem solving process of his client. How can he best send such messages?

SOME ASPECTS OF COMMUNICATION

What are the differences between taking a brick from bucket A and placing it in B, and transferring an idea from agent X tot farmer Y? 5)

5) The illustration has been adapted from one used by Dr. David Berlo, Chairman of the Department of Communication, Michigan State University, Personal Communication.



(1) After placing the brick in bucket B, A is empty. Not so in case of ideas: they are not subject to the laws of scarcity.

(2) The brick stays the same through the transfer, while the idea, at first existing only in X's head, is encoded by him into a set of symbols (message) according to certain rules. The message is received by Y, who decodes it into an idea according to certain rules. X hopes, ofcourse, that Y uses the same rules he does, but there is no guarantee for this. In fact, the idea entering Y's head may be quite different from the one X intended.

(3) Unlike bucket B, Y's head is by no means empty before receiving the message. In fact, he can only decode it because the symbols in the message activate meanings he already has.

An example may clarify the meaning of meaning. My nephew does not yet know the difference between right and left. Cycling together in Holland's streets, I have observed myself to say: "Go left". The reaction, invariably, is a questioning look. I then shout "GO LEFT" very loudly. In doing so, I give proof of my belief that meanings are in messages and that the boy will

get the meaning if I repeat the message or even shout it. But since he does not know the difference between right and left, my efforts are, ofcourse, wasted. The meaning is not in the message but in my nephew. If he does not have a meaning for a word (symbol), repeating or shouting it will not help. If I want the boy to go left, I will have to use another message.

Yes, meanings are in people ⁶⁾ and the change agent can make mistakes

⁶⁾ D.K. Berlo, The Process of Communication, New York, Holt, Rinehart and Winston, 1960.

if he does not realize it. For one, there is, again, no guarantee that the agent's idea gets into his client's head unchanged.

What are the implications of these observations for the change agent trying to affect his client's problem solving process?

DO'S FOR CHANGE AGENTS

(1) Collect and use feedback. Since the agent is never sure whether his message will get across, sending it is never sufficient in itself. It is like throwing a stone in the general direction of a target and walking away satisfied that it has hit. The agent better wait to observe the result of his action, wait to collect feedback. If he had missed, he can try again, now armed with more information about how to aim. Feedback is the best friend of the agent. He will profit much, for instance, from pre-testing important messages on a small scale and changing them on the basis of feedback he thus obtains.

(2) Be client oriented. Since meanings are in people and since the change agent is a "problem-solving-process helper" ⁷⁾, who can only succeed

⁷⁾ R.G. Havelock, A guide to Innovation in Education, Ann Arbor, Michigan: University of Michigan, 1970.

If he departs from his client's desires, the agent must make every effort to understand his client. He must know the client's worldview, language and desires and send his messages with them in mind. His ability to listen, more important than his ability to speak.

(3) Use a non-directive approach, especially when identifying your client's problems and way of thinking. If the recording of a change agent/client discussion yields an agent monologue, or if the agent's input, listened to in isolation, consists of a coherent, logical sequence, the agent has used a directive approach ⁸⁾. It implies that he has not reached to client inputs

8) C. Rogers, Counseling and Psychotherapy, Cambridge, Mass.: The Riverside Press, 1942

and not listened to or questioned his client. Instead, he had bombarded the client with what he thinks, feels and has to say. A directive approach will not allow the client to "come out", so that the agent using it makes it impossible for himself to understand what makes the client tick.

(4) Give careful thought to the nature of proof you offer a client. The agent, who must link the new idea he promotes to his client's desires, can of course, say: "Use fertiliser and you'll get a better income". But then he shows that he believes that his words offer sufficient proof to create the link between fertiliser and income in the farmer's mind. Such proof is seldom sufficient. If it were, we could replace agents with radios. More proof is normally needed. Some farmers can be convinced by explaining why a technique will solve a certain problem. Others will want a man they trust to give a testimonial. Many will follow the dictum "seeing is believing". For them a demonstration will be necessary. Other ways of offering proof exist. An arsenal of carefully considered proofs is a must for every change agent.

